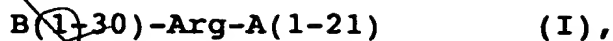


Patent Claims

- ✓ 1. A compound of the formula I



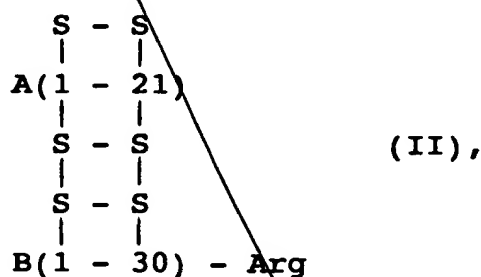
in which B(1-30) and A(1-21) denote the B and A chain of human insulin.

- ✓ 2. A compound of the formula I for use as a pharmaceutical, in particular for the treatment of diabetes mellitus.

- ✓ 3. A pharmaceutical containing the compound of the formula I.

- ✓ 4. A pharmaceutical composed of a pharmacologically acceptable excipient and the compound of the formula I.

5. The use of the compound of the formula I for the preparation of the compound of the formula II



in which A(1-21) and B(1-30) have the meaning mentioned in claim 1 and the -S-S- bridges are arranged as in insulin, or of insulin, preferably in a one-pot reaction.

- ✓ 6. A process for the preparation of the compound of the formula I which comprises expressing a gene structure encoding for this compound in a host cell, preferably

in a bacterium or in a yeast and, if the gene structure encodes for a fusion protein, liberating the compound of the formula I from the fusion protein obtained.

7. A DNA, encoding for the compounds of the formula I.
8. A gene structure or plasmid containing the DNA as claimed in claim 7.
9. A host cell, preferably a bacterium or a yeast, containing the gene structure or a plasmid as claimed in claim 8.
10. A fusion protein containing the compound of the formula I, preferably bonded via a bridging member

- Met - Ile - Glu - Gly - Arg -

to the "ballast component" of the fusion protein.

sub  
a<sup>3</sup>

add  
a<sup>4</sup>

add  
B<sup>2</sup>

add  
Z<sup>1</sup>

add  
Z<sup>4</sup>

add  
m<sup>2</sup>